

**PATENT**

**Docket No. DE920010081US1**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**INVENTORS: Andreas Arning and Roland Seiffert**

**APPL. NO. 10/670,638**

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Examiner: J. Jean Gilles

**CASE: DE920010081US1**

**TITLE: USING A PREDICTION ALGORITHM ON THE ADDRESSEE  
FIELD IN ELECTRONIC MAIL SYSTEMS**

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Commissioner for Patents  
MAIL STOP APPEAL BRIEF-PATENTS  
P.O. Box 1450  
Alexandria, VA 22313-1450

**Attention: Board of Patent Appeals and Interferences**

**APPELLANTS' BRIEF**

This is a resubmission of the Appeal Brief filed on September 2, 2008, and is being filed in response to the Notification of Non-compliant Appeal Brief, mailed December 11, 2008. Applicant notes that the Notification indicates that a continuation sheet should be part of the communication, but no continuation sheet was available to applicant, either as part of the Notification as mailed on December 11, 2008, or on PAIR, as of the date of this submission. Applicant therefore will respond as completely as possible, based upon the limited information given in Item 4. of the Notification. Applicant further notes that citations to page and line numbers of the specification where support for each independent claim may be found appeared in the original Brief filed on September 2, 2008 at the end of each claim (the citation covers all of the elements in the claim, so only a single citation is given for each claim). The text being added

by this submission indicates means plus function information, as required in Item 4. of the Notice, and is shown with double underlining for the convenience of the Board and the Examiner.

This brief is in furtherance of the Notice of Appeal filed in this case on June 30, 2008. The Commissioner is authorized to charge the fee for filing of this Appeal Brief to Deposit Account No. 09-0461.

**1. REAL PARTY IN INTEREST**

The present application is assigned to International Business Machines Corporation, having its principal place of business at New Orchard Road, Armonk, New York 10504. Accordingly, International Business Machines Corporation is the real party in interest.

**2. RELATED APPEALS AND INTERFERENCES**

The appellant, assignee, and the legal representatives of both are unaware of any other appeal or interference which will directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

**3. STATUS OF CLAIMS**

- A. Claims canceled: None
- B. Claims withdrawn from consideration but not canceled: None
- C. Claims pending: 1-33
- D. Claims allowed: none
- E. Claims rejected: 1-33
- F. Claims appealed: 1-33

Appealed claims 1-33 as currently pending are attached as the Claims Appendix hereto.

**4. STATUS OF AMENDMENTS**

A Reply under 37 C.F.R. §1.111 was filed on October 12, 2007; claim amendments were made. In response, the Examiner issued a final Office Action on December 31, 2007, which is appealed herein. A Reply under 37 C.F.R. §1.116 was filed on February 29, 2008; no claim amendments were made. The submission of the Reply did not result in allowance by the Examiner. A Notice of Appeal was filed on June 30, 2008.

**5. SUMMARY OF THE CLAIMED SUBJECT MATTER**

Claim 1: A computerized method for predicting a correct addressee to be filled-in in an addressee field in an e-mail system, whereby user-related history information, including the

user's prior sent and/or received e-mail, is analyzed for associating the most probable addressee for an e-mail to be addressed, comprising the steps of: analyzing at least one of the following attributes of said user-related history information and of said e-mail to be addressed: a subject line of said sent, received, and to-be-addressed e-mail; the length of said sent, received, and to-be-addressed e-mail; the language used in said sent, received, and to-be-addressed e-mail; a time associated with said sent, received, and to-be-addressed e-mail; the vocabulary used in said sent, received, and to-be-addressed e-mail; topics discussed in the body of said sent, received, and to-be-addressed e-mail; the salutation form used in said sent, received, and to-be-addressed e-mail; the closing form used in said sent, received, and to-be-addressed e-mail; whereby Text Mining methods are used to associate attribute values with respective addressees, thus yielding a plurality of single analysis results usable for said prediction, and weighting the plurality of said single analysis results to provide a Data Mining Model adapted to offer at least one top favorite addressee proposal as a prediction result (*page 4, line 1 to page 5, line 10*).

Claim 5: A computerized method for completing an addressee field in a user-initiated "new mail" within an e-mail system, comprising the steps of: on an occurrence of an incomplete entering of an addressee term in said addressee field, running a predictive Data Mining method based on a trained Data Mining Model developed by: analyzing one or more attribute values of user-related history information, including the user's prior sent and/or received e-mail, and of said new e-mail to be addressed, whereby Text Mining methods are used to associate attribute values with respective addressees, thus yielding a plurality of single analysis results usable for

said completing the address field; and weighting the plurality of single analysis results to provide a Data Mining Model adapted to offer at least one top favorite addressee proposal as an address-completion result; and conveying at least the most probable addressee proposal to the user as an address-completion result (*page 4, line 1 to page 5, line 10; page 7, line 21 to page 8, line 4*).

Claim 12: A computerized system for predicting a correct addressee to be filled-in in an addressee field in an e-mail system, whereby user-related history information, including the user's prior sent and/or received e-mail, is analyzed for associating the most probable addressee for an e-mail to be addressed, comprising: means for analyzing at least one of the following attributes of said user-related history information and of said e-mail to be addressed: a subject line of sent, received, and/or to-be-addressed e-mail; the length of said sent, received, and/or to-be-addressed e-mail; the language used in said sent, received, and/or to-be-addressed e-mail; a time associated with said sent, received, and/or to-be-addressed e-mail; the vocabulary used in said sent, received, and/or to-be-addressed e-mail; topics discussed in the body of said sent, received, and/or to-be-addressed e-mail; the salutation form used in said sent, received, and/or to-be-addressed e-mail; the closing form used in said sent, received, and/or to-be-addressed e-mail; whereby Text Mining methods are used to associate attribute values with respective addressees, thus yielding a plurality of single analysis results usable for said prediction(page 13, lines 8-24), and means for weighting the plurality of said single analysis results to provide a Data Mining Model adapted to offer at least one top favorite addressee proposal as a prediction result (*page 4, line 1 to Pg 5, line 10; (page 13, lines 8-24)*).

Claim 16: A computerized system for completing an addressee field of a new e-mail being sent by a user via an e-mail system, comprising: means for developing a trained Data Mining Model (page 13, lines 8-24), comprising means for analyzing one or more attribute values of user-related history information, including the user's prior sent and/or received e-mail, and of said new e-mail whereby Text Mining methods are used to associate attribute values with respective addressees, thus yielding a plurality of single analysis results usable for completing the address field of said new e-mail (page 13, lines 8-24), and means for weighting the plurality of single analysis results to provide a Data Mining Model adapted to identify at least the most probable addressee proposal from among the plurality of single analysis results as an address-completion result (page 13, lines 8-24); and means for conveying at least the most probable addressee proposal to the user as a proposed address-completion result (page 13, lines 8-24); whereby, on an occurrence of an incomplete entering of an addressee term in said addressee field, running said predictive Data Mining model to identify the most probable addressee proposal (page 8, lines 5-19).

Claim 23: A computer program product for predicting a correct addressee to be filled-in in an addressee field in an e-mail system, whereby user-related history information, including the user's prior sent and/or received e-mail, is analyzed for associating the most probable addressee for an e-mail to be addressed, the computer program product comprising a computer-readable storage medium having computer-readable program code embodied in the medium, the computer-readable program code comprising: computer-readable program code that analyzes at

least one of the following attributes of said user-related history information and of said e-mail to be addressed: a subject line of a sent, received, and/or to-be-addressed e-mail; the length of said sent, received, and/or to-be-addressed e-mail; the language used in said sent, received, and/or to-be-addressed e-mail; a time associated with said sent, received, and/or to-be-addressed e-mail; the vocabulary used in said sent, received, and/or to-be-addressed e-mail; topics discussed in the body of said sent, received, and/or to-be-addressed e-mail; the salutation form used in said sent, received, and/or to-be-addressed e-mail; the closing form used in said sent, received, and/or to-be-addressed e-mail; whereby Text Mining methods are used to associate attribute values with respective addressees, thus yielding a plurality of single analysis results usable for said prediction, and computer-readable program code that weights the plurality of said single analysis results to provide a Data Mining Model adapted to offer at least one top favorite addressee proposal as a prediction result (*page 4, line 1 to page 5, line 10*).

Claim 27: A computer program product for completing an addressee field in a user-initiated e-mail to be addressed within an e-mail system, the computer program product comprising a computer-readable storage medium having computer-readable program code embodied in the medium, the computer-readable program code comprising: computer-readable program code that, on an occurrence of an incomplete entering of an addressee term in said addressee field, runs a predictive Data Mining method based on a trained Data Mining Model developed by: analyzing one or more attribute values of user-related history information, including the user's prior sent and/or receive e-mail, and of said new e-mail to be addressed,

whereby Text Mining methods are used to associate attribute values with respective addressees, thus yielding a plurality of single analysis results usable for said completing the address field, and weighting the plurality of single analysis results to provide a Data Mining Model adapted to offer at least one top favorite addressee proposal as an address-completion result; and computer-readable program code that conveys at least the most probable addressee proposal to the user as an address-completion result (*page 4, line 1 to page 5, line 10; page 7, line 21 to page 8, line 4*).

The present invention teaches a method, system and computer program product for predicting/completing the addressee field in an electronic mail system, in which several aspects of the body of the user's sent and/or received mail, is analyzed, using text mining and/or data mining techniques, for associating the most probable addressee for a given e-mail letter.

Claim 1, as amended, recites:

A computerized method for predicting a correct addressee to be filled-in in an addressee field in an e-mail system, whereby user-related history information, including the user's prior sent and/or received e-mail, is analyzed for associating the most probable addressee for an e-mail to be addressed, comprising the steps of:

analyzing at least one of the following attributes of said user-related history information and of said e-mail to be addressed

a subject line of said sent, received, and to-be-addressed e-mail;

the length of said sent, received, and to-be-addressed e-mail;

the language used in said sent, received, and to-be-addressed e-mail;

a time associated with said sent, received, and to-be-addressed e-mail;

the vocabulary used in said sent, received, and to-be-addressed e-mail;

topics discussed in the body of said sent, received, and to-be-addressed e-mail;

the salutation form used in said sent, received, and to-be-addressed e-mail;

the closing form used in said sent, received, and to-be-addressed e-mail;

whereby Text Mining methods are used to associate attribute values with respective addressees, thus yielding a plurality of single analysis results usable for said prediction, and

weighting the plurality of said single analysis results to provide a Data Mining Model adapted to offer at least one top favorite addressee proposal as a prediction result.



Claims 5, 12, 16, 23 and 27 recite similar language.

The present invention uses text mining methods to mine the several elements of the body of the user's prior sent and/or received e-mail in order to find attribute text that can be associated, using data mining methods, with the individual respective email addresses of the prior email. As recited in claims 1, 6, 12, 17, 23 and 28, the attributes of the prior email which are analyzed include not just the email address, but the subject line, particular vocabulary used, the language used, the topics, as well as other attributes. Additionally, the present invention gives weightings to the various analyses which are done. Thus, novel aspects of the claimed invention include the use of text mining and data mining methods on several attributes of the user's prior email and the weighting of the results of the data mining. These aspects of the invention are expressly claimed in each pending claim.

**6. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

Applicant requests the Board to review the following rejection:

1. Rejection of claims 1-33 under 35 U.S.C. §102(e) based on U.S. Patent

Application Publication No. 2003/0115279 to Quine et al..

7. **ARGUMENT**

**The Cited Prior Art Does Not Anticipate the Claimed Invention**

The MPEP and case law provide the following definition of anticipation for the purposes of 35 U.S.C. § 102:

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. @ MPEP § 2131 citing *Verdegaal Bros. v. Union Oil Company of California*, 814 F.2d 628, 631, 2 U.S.P.Q. 2d 1051, 1053 (Fed. Cir. 1987)

**The Examiner Has Not Established a *Prima Facie* Case of Anticipation**

The present claimed invention uses text mining and data mining methods on the text in the body of the user's prior email and gives weightings to the results of the data mining. In contrast, Quine does not examine a user's prior email, does not examine the email's text, does not use text mining or data mining methods and does not give any weightings to anything. Quine merely checks the spelling of the name and domain in an email address of a currently sent email against an external database of names and/or domains.

In a telephone interview with the Examiner conducted on February 26, 2008, Applicants pointed out to the Examiner that Quine taught only checking the email address of a current email and did not teach checking the text in the other parts of the email as in the present invention. Applicants further stressed that, although Quine uses a database, there is nothing inherent in the use of a database or in anywhere else in Quine that suggests using text mining and data mining methods as in the present claimed invention. Similarly, Applicants pointed out that nowhere does Quine suggest weighting the results of the text and data mining as claimed in the present invention.

In the Office Actions of December 31, 2007 and July 12, 2007, the Examiner stated that Figs. 5A-B, 6, 7 and 9 and paragraphs [0065] to [0075] of Quine disclose the entire invention recited in the independent claims of the present application, with the exception of the weighting of the analysis results. However, the cited passage discloses only that the email address of a newly sent email is compared to external databases of the correct spelling of people's names and the correct formatting of known domain name formats. Nowhere does Quine use of text mining and data mining methods on the text of the body of the user's prior email as is claimed in each independent claim of the present invention. For this reason, Quine does not disclose or suggest the invention recited in claims 1, 5, 12, 16, 23 and 27.

Additionally, in the Office Actions, the Examiner stated that Fig. 9 and paragraphs [0074], [0075] and [0092] of to [0095] of Quine disclose weighting the plurality of said single analysis results to provide a Data Mining Model adapted to offer at least one top favorite addressee proposal as a prediction result. However, the cited language and figure disclose only percentages of use of various email address formats within various domains. Nowhere in the cited passage or anywhere else does Quine disclose weightings given to the results of different analyses as in the present claimed invention. For this additional reason, Quine does not disclose or suggest the invention recited in claims 1, 5, 12, 16, 23 and 27.

Accordingly, each of the independent claims (Claims 1, 5, 12, 16, 23 and 27), and all claims depending therefrom, patentably define over Quine and are in condition for allowance.

**8. CONCLUSION**

For the foregoing reasons applicants respectfully request this Board to overrule the Examiner's rejections and allow claims 1-33.

Respectfully submitted:

January 12, 2009  
Date

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## CLAIMS APPENDIX

### CLAIMS INVOLVED IN THIS APPEAL:

1. (Previously presented) A computerized method for predicting a correct addressee to be filled-in in an addressee field in an e-mail system, whereby user-related history information, including the user's prior sent and/or received e-mail, is analyzed for associating the most probable addressee for an e-mail to be addressed, comprising the steps of:

analyzing at least one of the following attributes of said user-related history information and of said e-mail to be addressed:

- a subject line of said sent, received, and to-be-addressed e-mail;
- the length of said sent, received, and to-be-addressed e-mail;
- the language used in said sent, received, and to-be-addressed e-mail;
- a time associated with said sent, received, and to-be-addressed e-mail;
- the vocabulary used in said sent, received, and to-be-addressed e-mail;
- topics discussed in the body of said sent, received, and to-be-addressed e-mail;
- the salutation form used in said sent, received, and to-be-addressed e-mail;
- the closing form used in said sent, received, and to-be-addressed e-mail;

whereby Text Mining methods are used to associate attribute values with respective addressees, thus yielding a plurality of single analysis results usable for said prediction, and

weighting the plurality of said single analysis results to provide a Data Mining Model adapted to offer at least one top favorite addressee proposal as a prediction result.

2. (Original) The method according to claim 1, wherein said e-mail system has multiple use modes, further comprising the step of:  
using separate Data Mining models for different use modes.

3. (Original) The method according to claim 1, further comprising the step of:  
performing a training of the Data Mining model triggered by any of the following criteria:

when a user overwrites the addressee proposal(s) made by the e-mail system, more frequently than limited by a predefined threshold level;

when the e-mail system is confronted with a number of new addressees not found in the user-related history information, and the number or fraction thereof is higher than a predefined threshold level;

after a predefined time limit has passed.

4. (Original) The method according to claim 1, in which the analysis results are generated in a table-like form, in which each attribute to be analyzed is associated with a predicted value, accompanied by a respective confidence value.

5. (Previously presented) A computerized method for completing an addressee field in a user-initiated "new mail" within an e-mail system, comprising the steps of:

on an occurrence of an incomplete entering of an addressee term in said addressee field, running a predictive Data Mining method based on a trained Data Mining Model developed by:

analyzing one or more attribute values of user-related history information, including the user's prior sent and/or received e-mail, and of said new e-mail to be addressed, whereby Text Mining methods are used to associate attribute values with respective addressees, thus yielding a plurality of single analysis results usable for said completing the address field; and

weighting the plurality of single analysis results to provide a Data Mining Model adapted to offer at least one top favorite addressee proposal as an address-completion result; and

conveying at least the most probable addressee proposal to the user as an address-completion result.

6. (Original) The method of claim 5, wherein said analyzing step includes at least the step of analyzing one or more of the following attribute values of said user-related history:

a subject line of sent, received, and/or to-be-addressed e-mail;

the length of said sent, received, and/or to-be-addressed e-mail;

the language used in said sent, received, and/or to-be-addressed e-mail;

a time associated with said sent, received, and/or to-be-addressed e-mail;

the vocabulary used in said sent, received, and/or to-be-addressed e-mail;

topics discussed in the body of said sent, received, and/or to-be-addressed e-mail;  
the salutation form used in said sent, received, and/or to-be-addressed e-mail; and  
the closing form used in said sent, received, and/or to-be-addressed e-mail.

7. (Original) The method according to claim 5, further comprising the step of:  
offering a subset of a predefined quantity of top favorite addressee proposals to the user  
for selection.

8. (Original) The method according to claim 5, further comprising the step of  
automatically providing an addressee field pre-filled with a top favorite addressee term.

9. (Original) The method according to claim 5, further comprising the step of  
testing the Data Mining model on a test set of e-mail, said test set not being used in the  
attribute-value analyzing step, before predicting the most probable addressee, and  
issuing a hint to the user, indicating the confidence of the predicted addressee proposal.

10. (Original) The method according to claim 5, further comprising the step of:  
automatically expanding a trunk of an address term with the most probable addressee  
term, when the trunk of the most probable addressee term is present in the addressee field.

11. (Original) The method according to claim 5, further comprising the step of:



cross-checking an addressee term entered by the user with a list of top favorite addressees, determined by the system, and issuing a warning, if the probability is high that the user-entered addressee term is faulty.

12. (Previously presented) A computerized system for predicting a correct addressee to be filled-in in an addressee field in an e-mail system, whereby user-related history information, including the user's prior sent and/or received e-mail, is analyzed for associating the most probable addressee for an e-mail to be addressed, comprising:

means for analyzing at least one of the following attributes of said user-related history information and of said e-mail to be addressed:

- a subject line of sent, received, and/or to-be-addressed e-mail;
- the length of said sent, received, and/or to-be-addressed e-mail;
- the language used in said sent, received, and/or to-be-addressed e-mail;
- a time associated with said sent, received, and/or to-be-addressed e-mail;
- the vocabulary used in said sent, received, and/or to-be-addressed e-mail;
- topics discussed in the body of said sent, received, and/or to-be-addressed e-mail;
- the salutation form used in said sent, received, and/or to-be-addressed e-mail;
- the closing form used in said sent, received, and/or to-be-addressed e-mail;

whereby Text Mining methods are used to associate attribute values with respective addressees, thus yielding a plurality of single analysis results usable for said prediction,

and

means for weighting the plurality of said single analysis results to provide a Data Mining Model adapted to offer at least one top favorite addressee proposal as a prediction result.

13. (Original) The system according to claim 12, wherein said e-mail system has multiple use modes, further comprising:

means for using separate Data Mining models for different use modes.

14. (Original) The system according to claim 12, further comprising:  
means for performing a retraining of the Data Mining model triggered by any of the following criteria:

when a user overwrites the addressee proposal(s) made by the e-mail system, more frequently than limited by a predefined threshold level;

when the e-mail system is confronted with a number of new addressees not found in the user-related history information, and the number or fraction thereof is higher than a predefined threshold level;

after a predefined time limit has passed.

15. (Original) The system according to claim 12, in which the analysis results are generated in a table-like form, in which each attribute to be analyzed is associated with a predicted value, accompanied by a respective confidence value.

16. (Previously presented) A computerized system for completing an addressee field of a new e-mail being sent by a user via an e-mail system, comprising:

means for developing a trained Data Mining Model, comprising

means for analyzing one or more attribute values of user-related history information, including the user's prior sent and/or received e-mail, and of said new e-mail whereby Text Mining methods are used to associate attribute values with respective addressees, thus yielding a plurality of single analysis results usable for completing the address field of said new e-mail, and

means for weighting the plurality of single analysis results to provide a Data Mining Model adapted to identify at least the most probable addressee proposal from among the plurality of single analysis results as an address-completion result; and

means for conveying at least the most probable addressee proposal to the user as a proposed address-completion result;

whereby, on an occurrence of an incomplete entering of an addressee term in said addressee field, running said predictive Data Mining model to identify the most probable addressee proposal.

17. (Original) The system of claim 16, wherein said means for analyzing includes at least means for analyzing one or more of the following attribute values of said user-related history:

a subject line of sent, received, and/or said new e-mail;

the length of said sent, received, and/or new e-mail;  
the language used in said sent, received, and/or new e-mail;  
a time associated with said sent, received, and/or new e-mail;  
the vocabulary used in said sent, received, and/or new e-mail;  
topics discussed in the body of said sent, received, and/or new e-mail;  
the salutation form used in said sent, received, and/or new e-mail; and  
the closing form used in said sent, received, and/or new e-mail.

18. (Original) The system according to claim 16, further comprising:  
means for presenting a subset of said single analysis results to said user, said subset  
comprising the most predefined quantity of top favorite addressee proposals to the user.

19. (Original) The system according to claim 16, further comprising means for  
automatically providing an addressee field pre-filled with the top favorite addressee.

20. (Original) The system according to claim 16, further comprising:  
means for testing the Data Mining model on a test set of mails, not being part of the  
training step before predicting the most probable addressee, and  
means for issuing a hint to the user, indicating the confidence of the predicted addressee  
proposal.

21. (Original) The system according to claim 16, further comprising:  
in case of a trunk of the addressee term being present in the addressee field, and in case a high significance of the predictable addressee being present provided by the run of the Data Mining method,  
means for automatically expanding said trunk with the most probable addressee term.

22. (Original) The system according to claim 16, further comprising:  
means for cross-checking a term entered by the user with a list of top favorite addressees, determined by the system, and issuing a warning, if the probability is high that the user-entered term is faulty.

23. (Previously presented) A computer program product for predicting a correct addressee to be filled-in in an addressee field in an e-mail system, whereby user-related history information, including the user's prior sent and/or received e-mail, is analyzed for associating the most probable addressee for an e-mail to be addressed, the computer program product comprising a computer-readable storage medium having computer-readable program code embodied in the medium, the computer-readable program code comprising:

computer-readable program code that analyzes at least one of the following attributes of said user-related history information and of said e-mail to be addressed:

a subject line of a sent, received, and/or to-be-addressed e-mail;

the length of said sent, received, and/or to-be-addressed e-mail;

the language used in said sent, received, and/or to-be-addressed e-mail;  
a time associated with said sent, received, and/or to-be-addressed e-mail;  
the vocabulary used in said sent, received, and/or to-be-addressed e-mail;  
topics discussed in the body of said sent, received, and/or to-be-addressed e-mail;  
the salutation form used in said sent, received, and/or to-be-addressed e-mail;  
the closing form used in said sent, received, and/or to-be-addressed e-mail;

whereby Text Mining methods are used to associate attribute values with respective addressees,  
thus yielding a plurality of single analysis results usable for said prediction,  
and

computer-readable program code that weights the plurality of said single analysis results  
to provide a Data Mining Model adapted to offer at least one top favorite addressee proposal as a  
prediction result.

24. (Original) The computer program product according to claim 23, wherein said e-mail system has multiple use modes, further comprising:  
computer-readable program code that uses separate Data Mining models for different use modes.

25. (Original) The computer program product according to claim 23, further comprising:  
computer-readable program code that performs a retraining of the Data Mining model triggered  
by any of the following criteria:

when a user overwrites the addressee proposal(s) made by the e-mail system, more frequently than limited by a predefined threshold level;

when the e-mail system is confronted with a number of new addressees not found in the user-related history information, and the number or fraction thereof is higher than a predefined threshold level;

after a predefined time limit has passed.

26. (Original) The computer program product according to claim 23, in which the analysis results are generated in a table-like form, in which each attribute to be analyzed is associated with a predicted value, accompanied by a respective confidence value.

27. (Previously presented) A computer program product for completing an addressee field in a user-initiated e-mail to be addressed within an e-mail system, the computer program product comprising a computer-readable storage medium having computer-readable program code embodied in the medium, the computer-readable program code comprising:

computer-readable program code that, on an occurrence of an incomplete entering of an addressee term in said addressee field, runs a predictive Data Mining method based on a trained Data Mining Model developed by:

analyzing one or more attribute values of user-related history information, including the user's prior sent and/or receive e-mail, and of said new e-mail to be addressed,

whereby Text Mining methods are used to associate attribute values with respective addressees, thus yielding a plurality of single analysis results usable for said completing the address field, and

weighting the plurality of single analysis results to provide a Data Mining Model adapted to offer at least one top favorite addressee proposal as an address-completion result; and

computer-readable program code that conveys at least the most probable addressee proposal to the user as an address-completion result.

28. (Original) The computer program product of claim 27, wherein said computer-readable program code that analyzes includes at least computer-readable program code that analyzes one or more of the following attribute values of said user-related history:

- a subject line of a sent, received, and/or to-be-addressed e-mail;
- the length of said sent, received, and/or to-be-addressed e-mail;
- the language used in said sent, received, and/or to-be-addressed e-mail;
- a time associated with said sent, received, and/or to-be-addressed e-mail;
- the vocabulary used in said sent, received, and/or to-be-addressed e-mail;
- topics discussed in the body of said sent, received, and/or to-be-addressed e-mail;
- the salutation form used in said sent, received, and/or to-be-addressed e-mail; and
- the closing form used in said sent, received, and/or to-be-addressed e-mail.



29. (Original) The computer program product according to claim 27, further comprising:  
computer-readable program code that offers a subset of predefined quantity of top  
favorite addressee proposals to the user.

30. (Original) The computer program product according to claim 27, further  
comprising computer-readable program code that automatically provides an addressee field pre-  
filled with the top favorite addressee.

31. (Original) The computer program product according to claim 27, further  
comprising:  
computer-readable program code that tests the Data Mining model on a test set of mails, not  
being part of the training step before predicting the most probable addressee, and  
computer-readable program code that issues a hint to the user, indicating the confidence  
of the predicted addressee proposal.

32. (Original) The computer program product according to claim 27, further  
comprising:  
in case of a trunk of the addressee term being present in the addressee field, and in case a  
high significance of the predictable addressee being present provided by the run of the Data  
Mining method,

computer-readable program code that automatically expands said trunk with the most probable addressee term.

33. (Original) The computer program product according to claim 27, further comprising:

computer-readable program code that cross-checks a term entered by the user with a list of top favorite addressees, determined by the system, and issues a warning, if the probability is high that the user-entered term is faulty.

**EVIDENCE APPENDIX**

No additional evidence is presented.

**RELATED PROCEEDINGS APPENDIX**

No related proceedings are presented.